

Curriculum Vitae

Jeffrey Neil Houser

U.S. Geological Survey
Upper Midwest Environmental
Sciences Center
2630 Fanta Reed Road
La Crosse, WI 54603

Phone: (608) 781-6262
Fax: (608) 783-6066
email: jhouser@usgs.gov

Education

University of Wisconsin, Madison, WI 53706

- 2001 Ph.D. Zoology - Dissertation Title: *Dissolved organic carbon in lakes: effects on thermal structure, primary production, and hypolimnetic metabolism.*
- 1998 M.S. Zoology - Thesis Title: *Food web structure and experimental enrichment: effects on phosphorus sedimentation and retention.*

Wake Forest University, Winston-Salem, NC 27109

- 1994 B.S. Magna cum Laude and with Honors in Biology - Senior Thesis Title: *Genetic diversity and divergence of endangered Galapagos and Hawaiian petrel populations*

Research Interests

Aquatic ecology, large rivers, streams, lakes, ecosystem metabolism, carbon and nutrient cycling, biogeochemistry, food webs, applied ecology

Research Experience

November 2003 – present: Research Ecologist/Limnologist, U.S. Geological Survey Upper Midwest Environmental Sciences Center.

July 2001-November 2003: Postdoctoral Research Associate—Stream Ecology, Oak Ridge National Laboratory. Supervisor: Patrick J. Mulholland.

May 1996 – June 2001: Graduate Research Assistant, Center for Limnology, University of Wisconsin, Madison. Dissertation adviser: Stephen R. Carpenter.

Professional Societies

American Society of Limnology and Oceanography; Ecological Society of America; North American Benthological Society

Professional Service

Reviewed manuscripts for the following journals: Hydrobiologia, Ecosystems, Journal of Environmental Engineering, Limnology and Oceanography, Fisheries

Publications

Houser, J.N., P.J. Mulholland, and K.O. Maloney. 2006. Upland disturbance affects headwater stream nutrients and suspended sediments during baseflow and stormflow. Journal of Environmental Quality. *In Press*.

Houser, J.N., P.J. Mulholland, and K.O. Maloney. 2005. Catchment disturbance and stream metabolism: patterns in ecosystem respiration and gross primary production along a gradient

of upland soil and vegetation disturbance. Journal of the North American Benthological Society 24:538-552.

Mulholland, P.J., **J.N. Houser**, and K.O. Maloney. 2005. Stream diurnal dissolved oxygen profiles as indicators of in-stream metabolism and disturbance effects: Fort Benning as a case study. Ecological Indicators 5:243-252.

Houser, J.N., D.L. Bade, J.J. Cole, M.L. Pace. 2003. The dual influences of dissolved organic carbon on hypolimnetic metabolism: organic substrate and photosynthetic inhibition. Biogeochemistry 64:247-269.

Essington, T.E. and **J.N. Houser**. 2003. The Effect of Whole-Lake Nutrient Enrichment on Mercury Concentration in Age- 1 Yellow Perch. Transactions of the American Fisheries Society 132:57-68.

Carpenter, S.R., J.J. Cole, J.R. Hodgson, J.F. Kitchell, M.L. Pace, D. Bade, K.L. Cottingham, T.E. Essington, **J.N. Houser** and D.E. Schindler. 2001. Trophic cascades, nutrients and lake productivity: experimental enrichment of lakes with contrasting food webs. Ecological Monographs 71:163-186.

Houser, J.N., S.R. Carpenter, J.J. Cole. 2000. Food web structure and nutrient enrichment: effects on sediment phosphorus retention in whole-lake experiments. Canadian Journal of Fisheries and Aquatic Sciences 57:1524-1533.

Bennett, E. M., T. Reed-Andersen, **J.N. Houser**, J.R. Gabriel, S.R. Carpenter. 1999. A phosphorus budget for the Lake Mendota watershed. Ecosystems 2:69-75.

Carpenter, S.R., J.J. Cole, T.E. Essington, J.R. Hodgson, **J.N. Houser**, J.F. Kitchell, and M.L. Pace. 1998. Evaluating alternative explanations in ecosystem experiments. Ecosystems 1: 335-344.

Browne, R.A., D.J. Anderson, **J.N. Houser**, F. Cruz, K.J. Glasgow, C.N. Hodges, G. Massey. 1997. Genetic diversity and divergence of endangered Galapagos and Hawaiian Petrel populations. The Condor 99:812-815.

Invited Seminars

Houser, J.N. Inputs of terrestrial dissolved organic carbon, nutrients, and sediment affect the physics, chemistry and biology of aquatic systems: Examples from Wisconsin lakes and Georgia streams." United States Geological Survey. Reston, Virginia. June 25, 2002.

Houser, J. N., P.J. Mulholland and K. Maloney. Watershed land use affects primary production, community respiration, and nutrient cycling in streams: Results of a comparative study of streams at Ft. Benning, Georgia. Thirteenth Tennessee Water Resources Symposium, American Water Resources Association. Nashville, Tennessee. April 9-11, 2003.

Selected Presentations

- Houser, J.N., D.W. Bierman, R.M. Burdis, J.R. Fischer, B.R. Gray, J.T. Rogala, and L.A. Soeken-Gittinger. Nutrients and chlorophyll in the Upper Mississippi River: Patterns in time and space. U.S. Environmental Protection Agency's Mississippi River Basin Nutrients Science Workshop. St. Louis, Missouri. October 4-6, 2005.
- Houser, J.N., J.T. Rogala, B.R. Gray, and L. A. Gittinger. Nutrients and chlorophyll a in the Upper Mississippi River System: What can we learn from spatial and temporal patterns? North American Benthological Society. New Orleans, Louisiana. May 22-27, 2005.
- Houser, J.N., J.T. Rogala, B.R. Gray, J. R. Fischer and B. L. Johnson. Using long-term monitoring data to understand spatial and temporal variability in the Upper Mississippi River System. Ecological Society of America 89th Annual Meeting. Portland, Oregon. August 1-6, 2004.
- Houser, J.N. and P.J. Mulholland. Predicting reaeration rates from stream characteristics: a simple model for streams in the southeastern coastal plain. Poster. North American Benthological Society. Athens, Georgia. May 27-31, 2003.
- Houser, J.N., P.J. Mulholland, and K. Maloney. Disturbance of upland soil and vegetation affects the export of nutrients and sediments to streams during storm events. Oral Presentation. Ecological Society of America. Savannah, Georgia. August 3 - 8, 2003.
- Houser, J.N., P.J. Mulholland, and K. Maloney. Patterns in stream respiration and primary production along a gradient of upland soil and vegetation disturbance. Oral Presentation. American Geophysical Union. San Francisco, CA. December 6-10, 2002.
- Houser, J.N. Colored dissolved organic matter affects the surface temperature, heat content, and epilimnetic light intensity of small lakes. Oral Presentation. American Society of Limnology and Oceanography 2002 Summer Meeting. Victoria, British Columbia. June 10-4, 2002.
- Houser, J.N. and P.J. Mulholland. Stream metabolism and stormflow chemistry: Patterns along a gradient of upland disturbance. Oral Presentation. North American Benthological Society 50th Annual Meeting. Pittsburgh, Pennsylvania. May 27-June 1, 2002.
- Houser, J.N., D. Bade, S.R. Carpenter, J.J. Cole, M.L. Pace. The dual influences of dissolved organic carbon on hypolimnetic metabolism: organic substrate and photosynthetic inhibition. Oral Presentation. American Society of Limnology and Oceanography 2001 Winter Meeting. Albuquerque, New Mexico. February 12-16, 2001.
- Houser, J.N., C.E.H. Scheele, T.E. Essington, S.R. Carpenter, and J.F. Kitchell. Long-term effects of a short-term lake food web manipulation: Tuesday Lake 12 years later. Oral Presentation. Ecological Society of America 85th Annual Meeting. Snowbird, Utah. August 6-10, 2000. Also presented at the LTER All Scientists Meeting which preceded the ESA meeting at Snowbird (August 2-4, 2000).
- Houser, J.N. and S.R. Carpenter. Light-mediated interactions of colored DOC and chlorophyll. Oral Presentation. Ecological Society of America 84th Annual Meeting. Spokane, Washington. August 8-12, 1999.

Houser, J. N., S.R. Carpenter, and J.J. Cole. Food web structure and experimental enrichment: Effects on phosphorus sedimentation and retention in whole-lake experiments. Oral Presentation. North American Lake Management Society Eighteenth Annual International Symposium. Banff, Alberta Canada. November 10-13, 1998.